



# MANAGING YOUR MONITORING WELL NETWORK

- ❑ Monitoring Well Inventory
- ❑ Well Inspection
- ❑ Well Rehabilitation
- ❑ Well Decommissioning
- ❑ Ground-Water Monitoring Program  
Evaluation and Operation





# INFORMATION NEEDS

- ❑ Where are all of the monitoring wells?
- ❑ What is their usage status?
- ❑ What is their physical condition?
- ❑ Do any need to be repaired? If so, can they be repaired and how can they be repaired?
- ❑ Which wells should be decommissioned?
- ❑ What are the regulatory requirements for decommissioning the wells?

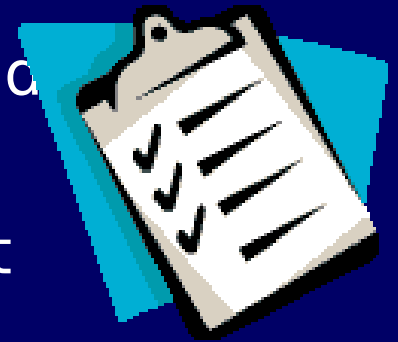




# WHY MANAGE YOUR WELLS?

## *Benefits!*

- ❑ Achieve compliance with state well maintenance and closure requirements
- ❑ Develop accurate well location maps and well design databases
- ❑ Repair or replace old wells using current technology
- ❑ Properly mark existing wells
- ❑ Eliminate nonfunctional and unneeded wells



# MONITORING WELL INVENTORY

*Are the wells needed?*

- Determine the purpose of the well or well network
- Are the wells still being monitored for the intended purpose?
- Is there any future need for the wells?



# MONITORING WELL INSPECTION

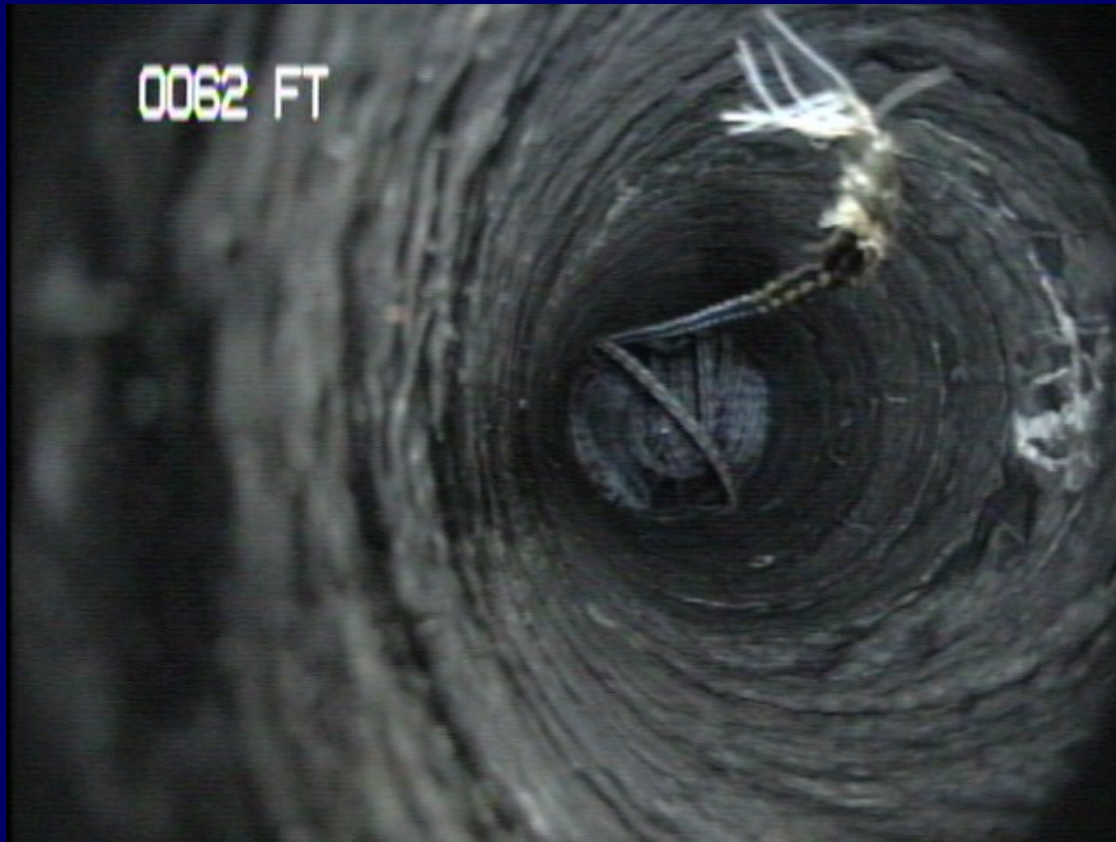
*Physical and Functional Status of the Well*

- Evaluate the condition of the well pipe, protective casing, lock, and concrete pad
- Measure well depth and compare to original depth to determine amount of siltation
- Conduct downhole camera inspections
- Pump or bail the well to check performance
- Determine if wells are properly registered
- Evaluate the adequacy of the well marking



# DOWNHOLE CAMERA SHOT

## *Bailer in Bottom of Well*



USACHPPM, Ground Water and Solid Waste Program

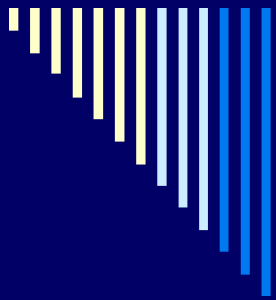


# MONITORING WELL REHABILITATION

*Which wells do we repair ?*

- Determine if wells should be repaired based on well condition and usage status
- Decide whether to repair or replace the well based on the extent of damage and performance requirements





# WHY DECOMMISSION YOUR WELLS? *Benefits!*



- ❑ Eliminate nonfunctional and unneeded wells
- ❑ Restore the hydrogeologic characteristics of the site
- ❑ Remove potential conduits of contamination
- ❑ Remove unsightly wells
- ❑ Reduce obstacles for mowers, earth-moving or other equipment



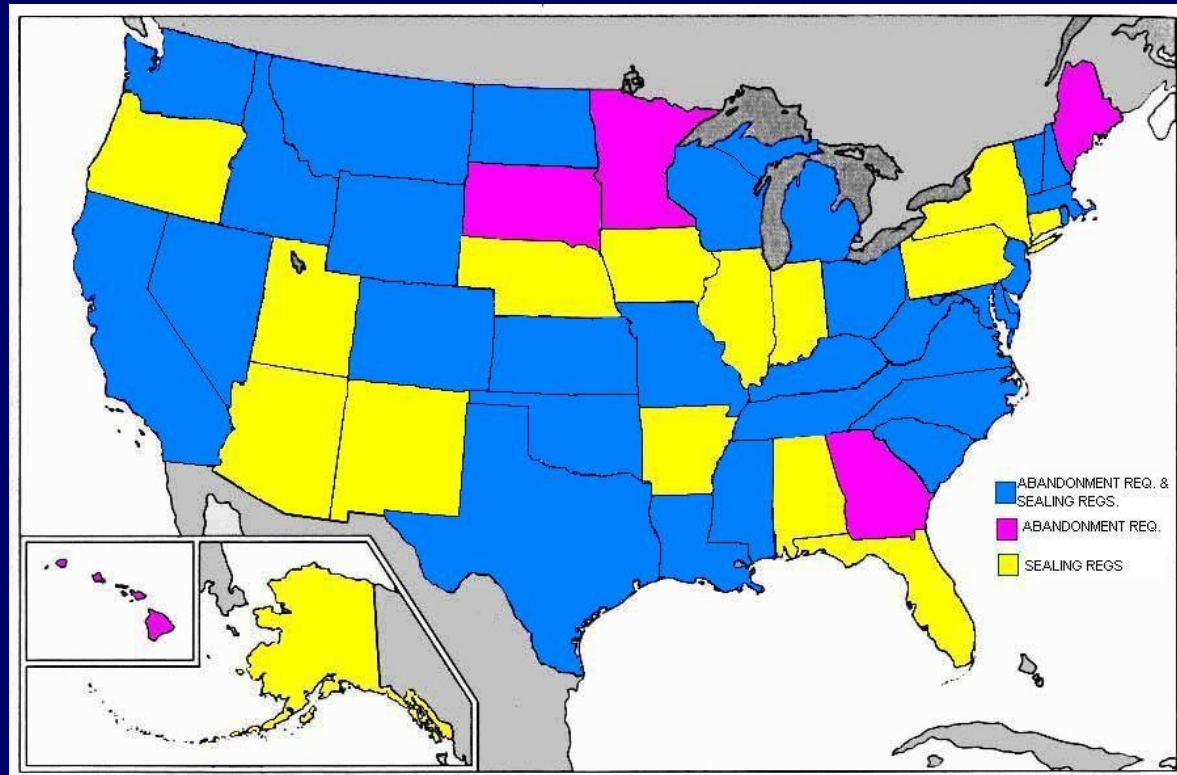


# BEFORE AND AFTER



USACHPPM, Ground Water and Solid Waste Program

# STATE DECOMMISSIONING REQUIREMENTS



BLUE – Decommissioning & plugging requirements

PINK – Decommissioning requirements

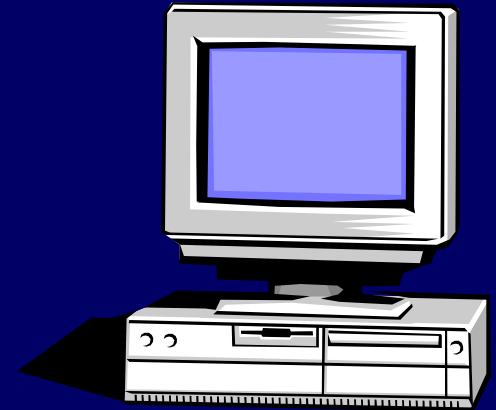
YELLOW – Plugging requirements

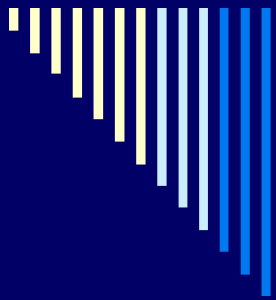
USACHPPM, Ground Water and Solid Waste Program



## *Resulting Products*

- Accurate well location maps in electronic and hard copy
- Database for organizing and utilizing well information in format preferred by customer
- Fully functional monitoring well network
- Properly documented and reported decommission of unused or unusable wells





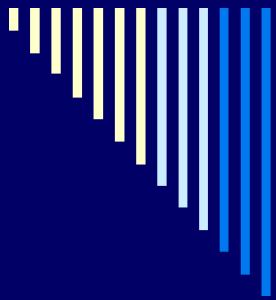
# MONITORING PROGRAM EVALUATION AND OPERATION

## *Using Your Well Networks*

- Develop or evaluate ground-water monitoring programs
  - suitable number & locations of wells
  - appropriate monitoring frequency and chemical analytes
- Perform periodic ground-water sampling and analysis
- Assess ground-water flow rate and direction using slug tests and water elevation measurements







# MONITORING WELL SERVICES

*For assistance . . .*

U.S. Army Center for Health  
Promotion and Preventive Medicine  
(USACHPPM)

Mr. Wayne Fox – (410) 436-2024

[wayne.fox@us.army.mil](mailto:wayne.fox@us.army.mil)

<http://chppm-www.apgea.army.mil/gwswp>

Other services are available – soil and ground-water sampling, monitoring well installation, Site Inspections, and more!



USACHPPM, Ground Water and Solid Waste Program